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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,803	03/28/2006	Florian Dotz	288248US0PCT	9379

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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WILSON, MICHAEL H

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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12/28/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,803	<b>Applicant(s)</b> DOTZ ET AL.	
	<b>Examiner</b> MICHAEL WILSON	<b>Art Unit</b> 1794	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 7-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 October 2009 has been entered.

### ***Response to Amendment***

2. This Office action is in response to Applicant's amendment filed 30 October 2009, amends claims 1 and 7.

Claims 1, 3, 4, and 7-21 are pending.

3. The rejection under 35 U.S.C. 102(b) of claims 1 and 3 as being anticipated by Wu et al. (From branched hydrocarbon propellers to C<sub>3</sub>-symmetric graphite disks.) is overcome due to Applicant's amending of the claims in the reply filed 30 October 2009.

4. The rejection(s) under 35 U.S.C. 103(a) of claims 1, 3, 7-9, and 11-13 as being unpatentable over Cho et al. (US 2005/0067955 A1) is overcome due to applicant's amending of the claims in the reply filed 30 October 2009.

5. The rejection(s) under 35 U.S.C. 103(a) of claims 10 and 14-21 as being unpatentable over Cho et al. (US 2005/0067955 A1) as applied to claims 9 and 13

above, and in view of Nishi et al. (US 2001/0004190 A1) is overcome due to applicant's amending of the claims in the reply filed 30 October 2009.

6. The abstract filed 30 October 2009 is accepted.

### ***Claim Objections***

7. Claims 1 and 7 are objected to because of the following informalities:

Regarding claim 1, and 7, R<sup>4</sup> and R<sup>5</sup> should be removed from instant formulae (I) and (I') because R<sup>4</sup> and R<sup>5</sup> are no longer variables but are required by the claims to be hydrogen.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3, 7-9, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitamoto et al. (JP H10-189248 A), machine translation relied upon.

Regarding claims 1, 3, 7-9, and 11-13, Kitamoto et al. disclose a fluoranthene of instant formula (I) wherein R<sup>1</sup> and R<sup>3</sup> are phenyl, R<sup>2</sup> is hydrogen, X is a biphenyl group, an oligophenyl group as defined by instant formula (IV) wherein m<sup>3</sup> is 1, and n is 1

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([0018] compound 108). The reference also discloses an organic electroluminescent device comprising the fluoranthene compound [0004] as the light-emitting molecule in the luminescent layer ([0051] and [0061]).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 10 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamoto et al. (JP H10-189248 A) as applied to claims 9 and 13 above and in view of Nishi et al. (US 2001/0004190 A1).

Regarding claims 10 and 14-21, Kitamoto et al. disclose all the claim limitations as set forth above. However, the reference does not explicitly disclose the device as part of a television, mobile phone, laptop, or vehicle, which are mobile and stationary visual display units.

Nishi et al. teaches a similar light-emitting diode [0007]. The reference teaches the device may be used in mobile visual display units like a television (figure 13A), a mobile phone (figure 14A), a laptop (figure 13F), or a vehicle (figure 14B, [0219]).

It would be obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Nishi et al. with the device of Kitamoto et al. and use the device of Kitamoto et al. in mobile or stationary visual display units like a television, a mobile phone, a laptop, or a vehicle. One of ordinary skill in the art would reasonably expect such a combination to be suitable given that Nishi et al. teaches organic light-emitting diodes may be used in mobile phones, laptops, or vehicles. One of ordinary skill would be motivated by a desire to utilize the device of Kitamoto et al.

#### ***Allowable Subject Matter***

13. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to overcome all formal requirements.

14. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art, Kitamoto et al. (JP H10-189248 A), discloses similar fluoranthene compounds wherein X is an alkyl group with  $n = 1$ , however the reference does not teach or suggest  $n = 2$ . Hosokawa et al. (JP 2002/069044 A), Cho et al. (US 2005/0067955 A1), and Wu et al. (From branched hydrocarbon propellers to  $C_3$ -symmetric graphite disks.) each teach fluoranthene compounds wherein  $n$  is 2 or larger,

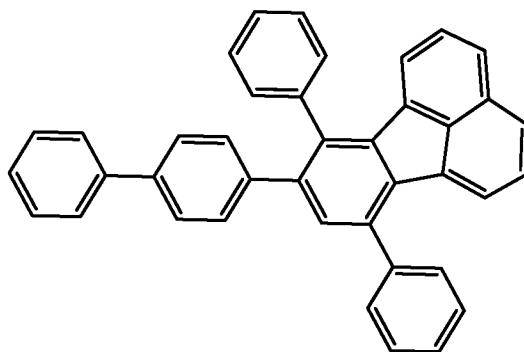
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however each reference fails to teach or suggest the linking group X may be an alkyl group.

### ***Response to Arguments***

15. Applicant's arguments filed 30 October 2009 have been fully considered but they are not persuasive.

Applicants argue that the compound of Kitamoto et al. 7,10- diphenyl-8-(4'phenylphenyl)fluoranthene (compound 108) on page 76 of Kitamoto, cannot anticipate present claims because, in order for this compound to anticipate, X would have to be capable of being phenyl in present Claims 1 and 7, and X cannot be phenyl in these claims. However the examiner respectfully disagrees. Compound 108 of Kitamoto et al., 7,10- diphenyl-8-(4'phenylphenyl)fluoranthene is shown below.



X in this compound is not a phenyl but a *biphenyl* which meets instant formula (IV) defining an oligophenyl group where  $m^3$  is 1,  $n$  is 1,  $R^1$  and  $R^3$  are phenyl, and  $R^2$ ,  $R^4$  and  $R^5$  are hydrogen.

***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL WILSON whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00PM EST, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/  
Supervisory Patent Examiner, Art Unit 1794

MHW